

Amendments to the Specification:

Please amend the specification as follows:

Please replace paragraphs 4 and 9, with the following rewritten paragraphs.

[0004] For example, an assembly line where the thickness of manufactured plastic or metal components might be measured. In such an example, every component passing through the sensor produces a signal that has a shape that is substantially similar to the preceding signal—but the signal may be longer or shorter depending upon the speed of the conveyor belt. Another example would be the force applied to the die set in a metal stamping machine. Once again, a signal representing this force would possess a similar shape with every repetition of the machine's movement. The length of the force signal, however, may be longer or shorter depending upon how fast the machine is operating. Biological signals may also produce signals with repetitive deterministic artifacts. One such example includes the use of cardiac signals from a biological heart monitored from EKG traces.

[0009] It is yet another object of the invention to develop an system for monitoring non-coincident, non-stationary process signals that correspond to a biological process, such as signals emanating from a biological heart.